



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

**Tyson J. Mackjust *et al.***

Serial No.: **10/699,009**

Filed: **October 30, 2003**

For: **MENU-DRIVEN REMOTE  
CONTROL TRANSMITTER**

Group Art Unit: **2612**

Examiner: **Van Thanh TRIEU**

Attorney File No.: **DEI 004 UTL**

Office Action Mailed On: **8/10/2006**

**APPEAL BRIEF TO THE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

This Appeal Brief is responsive to the rejections in the Office Action mailed on August 10, 2006, in the above-referenced patent application. The Office Action set a period of three months for reply. The Appeal Brief is being filed concurrently with a Notice of Appeal and within three months of the mailing date of the Office Action. Therefore, the Notice of Appeal and the Appeal Brief are timely and no time extension fee is due. If the undersigned attorney is mistaken in this regard, Applicants conditionally petition for an appropriate extension of time, and authorization is hereby granted to charge all required time extension fees to Deposit Account No. 041160.

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Applicants had previously filed another Notice of Appeal and another Appeal Brief, and paid fees therefor. Prosecution was reopened in response to the previous Appeal Brief. Applicants request that the fees paid for filing the previous Notice of Appeal and Appeal Brief be applied to the present Notice of Appeal and Appeal Brief. The fees for filing a Notice of Appeal and Appeal Brief have not changed since filing of the previous Notice and Brief. Therefore, no additional fees are due for filing the attached Notice of Appeal and this Appeal Brief. If the undersigned attorney is mistaken in this regard, authorization is hereby granted to charge the Notice of Appeal and Appeal Brief fees to the same Deposit Account. Authorization is also granted to charge to the same Deposit Account all other fees necessary to file this Appeal Brief and the attached Notice of Appeal.

**I**  
**REAL PARTY IN INTEREST**

In this Appeal, the real party in interest is DEI HEADQUARTERS, Inc., a Florida corporation, having a place of business at One Viper Way, Vista, CA 92081.

**II**  
**RELATED APPEALS AND INTERFERENCES**

Appellants, Assignee, and the undersigned legal representative do not know of any other appeal, interference, or judicial proceeding that is related to, directly affects, is directly affected by, or has a bearing on the decision of the Board of Patent Appeals and Interferences (the “Board” or the “Board of Appeals”) in this Appeal.

III  
**STATUS OF CLAIMS**

The status of claims in the instant application is as follows:

Claims 1 through 67 have been rejected and are pending.

Applicants appeal from the rejection of claims 3-30, 33-44, and 46-67.

**IV**  
**STATUS OF AMENDMENTS**

No amendments have been filed after the rejection of claims in the Office Action mailed on August 10, 2006.

V  
**SUMMARY OF CLAIMED SUBJECT MATTER**

**Claim 1**

Claim 1 is directed to a remote control transmitter for enabling a user to control remotely a security system. *E.g.*, Specification, par. [0020], [0031], [0044]; Fig. 1, items 10 and 15; Fig. 2, item 300. The security system has a base unit with a communication module. *E.g.*, Specification, par. [0020], [0044], [0045]; Fig. 2, items 205 and 210.

The remote control transmitter includes a processor. *E.g.*, Specification, par. [0058]; Fig. 3, item 301.

The remote control transmitter further includes a display coupled to the processor to display information to the user under control of the processor. *E.g.*, Specification, par. [0058], [0062], [0063]; Fig. 3, item 350; Fig. 9, item 920.

The remote control transmitter also includes first and second input devices whose states are selected by the user. *E.g.*, Specification, par. [0062], [0065]-[0067]; Fig. 3, items 323 and 324; Fig. 9, item 930. The first and second input devices are coupled to the processor to allow the processor to read the user-selectable states of the first and the second input devices. *E.g.*, Specification, par. [0022], [0062], [0071]; Fig. 3, items 323 and 324.

The remote control transmitter further includes a transmitter (transmitting device) coupled to the processor. *E.g.*, Specification, par. [0023], [0064], [0066]; Fig. 3, item 311. The transmitter is capable of sending remote commands to the communication module of the base unit under control of the processor. *E.g.*, Specification, par. [0023], [0064], [0066].

The remote control transmitter also includes a memory module coupled to the processor. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 303, 304, and 305. The memory module stores code executed by the processor. *E.g.*, Specification, par. [0022], [0058]. Under control of the code, the processor displays to the user various menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device. *E.g.*, Specification, par. [0022], [0023], [0065], [0066], [0073]; Fig. 5, steps 507, 525; Fig. 6, steps 607, 615, 621, 627, 637.

### Claim 31

Claim 31 is directed to a remote control security system installed in a vehicle. *E.g.*, Specification, par. [0020], [0031], [0044]; Fig. 2, item 200. The security system includes a base unit and a remote control transmitter enabling a user to operate the base unit. *E.g.*, Specification, par. [0020], [0044], [0045]; Fig. 2, items 290 and 205.

The base unit includes a base controller, security sensors coupled to the base controller, and

a communication module. *E.g.*, Specification, par. [0045]; Fig. 2, items 230, 215, 217, 219, 210.

The remote control transmitter includes a processor. *E.g.*, Specification, par. [0058]; Fig. 3, item 301.

The remote control transmitter further includes a display coupled to the processor to display information to the user under control of the processor. *E.g.*, Specification, par. [0022], [0058], [0062], [0063]; Fig. 3, item 350; Fig. 9, item 920.

The remote control transmitter further includes first and second input devices coupled to the processor to allow the processor to read states of the first and second input devices; the states of the first and second input devices are user-selectable. *E.g.*, Specification, par. [0022], [0062], [0065]-[0067], [0071]; Fig. 3, items 323 and 324; Fig. 9, item 930.

The remote control transmitter further includes a transmitter coupled to the processor. *E.g.*, Specification, par. [0023], [0064], [0066]; Fig. 3, item 311. The transmitter is capable of sending remote commands to the communication module of the base unit under control of the processor. *E.g.*, Specification, par. [0023], [0064], [0066].

The remote control transmitter also includes a memory module storing code. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305. The memory module is coupled to the processor to allow the processor to execute the code. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305. Under control of the code, the processor displays to the user various menu items

on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device. *E.g.*, Specification, par. [0022], [0023], [0065]; [0066]; [0073]; Fig. 5, steps 507, 525; Fig. 6, steps 607, 615, 621, 627, 637.

Claim 45

Claim 45 is directed to a remote controller for enabling a user to control a security system installed in a vehicle. *E.g.*, Specification, par. [0020], [0031], [0044]; Fig. 1, items 10 and 15; Fig. 2, item 200. The security system includes a base unit with a communication module. *E.g.*, Specification, par. [0020], [0044], [0045]; Fig. 2, items 205 and 210.

The remote controller includes means for processing data. *E.g.*, Specification, par. [0058]; Fig. 3, items 301/331.

The remote controller further includes means for displaying information to the user under control of the means for processing. *E.g.*, Specification, par. [0058], [0062], [0063]; Fig. 3, item 350; Fig. 9, item 920; Fig. 10, item 1020; Fig. 11, item 1120; Fig. 12, item 1230 (display); Fig. 13, item 1320.

The remote controller further includes first and second input means; each of the first and second input means is configured to assume at least two states under control of the user. *E.g.*,

Specification, par. [0062], [0065]-[0067], [00180], [00185], [00186], [00202], [00203]; Fig. 3, items 323 and 324; Fig. 9, item 930; Fig. 10, item 1030; Fig. 11, item 1130; Fig. 12, item 1230 (scroll wheel); Fig. 13, item 1330. The first and second input means are each coupled to the processing means to allow the processing means to read the states of the first and second input means. *E.g.*, Specification, par. [0022], [0062], [0071]; Fig. 3, items 323, 324.

The remote controller further includes a transmitter coupled to the processing means. *E.g.*, Specification, par. [0023], [0064], [0066]; Fig. 3, item 311; Fig. 13, item(s) 1370/1360. The transmitter is capable of sending remote commands over an RF link to the communication module of the base unit under control of the processing means. *E.g.*, Specification, par. [0023], [0064], [0066].

The remote controller also includes memory means. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 303, 304, 305; Fig. 13, item 1348. The memory means is coupled to the processing means and stores the code executed by the processing means. *E.g.*, Specification, par. [0022], [0058]. Under control of the code, the processing means displays to the user various menu items on the display means, allows the user to scroll among the menu items to point to one of the menu items using the first input means, and allows the user to select the menu item that is pointed to by using the second input means. *E.g.*, Specification, par. [0022], [0023], [0065], [0066], [0073]; Fig. 5, steps 507, 525; Fig. 6, steps 607, 615, 621, 627, 637.

Claim 46

Claim 46 is directed to the remote controller of claim 45. In the remote controller, the first input means comprises a scroll wheel. *E.g.*, Specification, pars. [0022], [0066]; Fig. 9, item 930. The user selects the state of the first input means by rotating the scroll wheel. *E.g.*, Specification, pars. [0066], [00180]. The second input means comprises an internal push-to-activate switch of the scroll wheel. *E.g.*, Specification, pars. [0066], [00180]. The user selects the state of the second input means by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel. *E.g.*, Specification, pars. [0066], [00180].

Claim 47

Claim 47 is directed to the remote controller of claim 46. In the remote controller, the display means displays the menu items one at a time. *E.g.*, Specification, par. [0025].

Claim 48

Claim 48 is directed to the remote controller of claim 47. The remote controller displays menu items so that one of the menu items occupies no less than substantially half of the display area of the display means capable of displaying menu items. *E.g.*, Specification, pars. [0025].

Claim 52

Claim 52 is directed to the remote controller of claim 46. In the remote controller, each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the plurality of tasks to be performed by the base unit and the remote controller. The menu items comprise a screen inversion menu item, the plurality of tasks comprising a screen inversion task, the screen inversion menu item corresponding to the screen inversion task. The code executed by the processing means causes the processing means to perform the screen inversion task and invert the display means when the screen inversion menu item is selected. *E.g.*, Specification, pars. [0026], [0066], [00181].

Claim 53

Claim 53 is directed to the remote controller of claim 47. The remote controller further comprises an outer shell means for housing the processing means, the display means, the first and second input means, the transmitter, and the memory means, the outer shell means being for enabling the user to hold and operate the remote control with one hand. *E.g.*, Specification, par. [00180]; Fig. 9, item 910; Fig. 10, item 1010; Fig. 11, item 1110; Fig. 12, item 1210.

Claim 60

Claim 60 is directed to a method of operating a remote controller to control a remote controlled system over a wireless link. *E.g.*, Specification, par. [0020], [0021], [0023], [0060], [0061], [0066], [0073], [0081]. The method includes holding the remote controller in one hand. *E.g.*, Specification, par. [0024], [0026], [00180], [00185], [00186], [00203]. The method further includes rotating a scroll wheel with an internal push-to-activate switch with the thumb of the hand to cause the remote controller to display menu items. *E.g.*, Specification, par. [0066], [00180]. The method also includes depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel to select a menu item and transmit a remote command associated with the selected menu item to the remote controlled system. *E.g.*, Specification, par. [0067], [0073], [0081]; Fig. 9, item 930; Fig. 10, item 1030; Fig. 11, item 1130; Fig. 12, item 1230 (scroll wheel).<sup>1</sup>

Claim 62

Claim 62 is directed to a menu-driven remote control for operating a controlled system over a wireless link. *E.g.*, Specification, par. [0041], [00203]-[00206]; Fig. 13, item 1300. The remote control includes a hand-held general-purpose computing device. *E.g.*, Specification, par. [0027], [0041], [00203]; Fig. 13, item 1310. The remote control also includes a wireless communication module. *E.g.*, Specification, par. [00203]; Fig. 13, item 1360.

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<sup>1</sup> Figures 9, 10, 11, and 12 show scroll wheels 930, 1030, 1130, and 1230 slightly protruding in a radial direction

The hand-held general-purpose computing device includes a first interface section. *E.g.*, Specification, par. [00203]; Fig. 13, item 1340.

The hand-held general-purpose computing device further includes a manual input portion. *E.g.*, Specification, par. [00203]; Fig. 13, item 1330.

The hand-held general-purpose computing device further includes a memory module. *E.g.*, Specification, par. [00203]; Fig. 13, item 1348.

The hand-held general-purpose computing device further includes a graphical display. *E.g.*, Specification, par. [00203]; Fig. 13, item 1320.

The hand-held general-purpose computing device also includes a controller coupled to the first interface section, the manual input portion, the memory module, and the graphical display. *E.g.*, Specification, par. [00203]-[00206]; Fig. 13, item 1345. The controller is configured to execute instruction code. *E.g.*, Specification, par. [00206].

The wireless communication module includes a second interface section. *E.g.*, Specification, par. [00204]; Fig. 13, item 1385.

The wireless communication module further includes a transmitter coupled to the second interface section. *E.g.*, Specification, par. [00204]-[00206]; Fig. 13, item 1370. The second interface section is coupled to the first interface section through a digital bus. *E.g.*, Specification, par. [00204],

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from the outer shells 910, 1010, 1110, and 1210, while the text describes pushing the scroll wheel and the push-to-activate switch.

[00205]; Fig. 13, item 1380. The transmitter is capable of sending a plurality of remote commands to the controlled system over the wireless link. *E.g.*, Specification, par. [00205]-[00207]. The remote commands instruct the controlled system to perform various operations. *E.g.*, Specification, par. [0023], [00207].

The controller under control of the instruction code displays to the user on the graphical display various menu items of a plurality of menu items. *E.g.*, Specification, par. [0027], [00206], [00207]. Each menu item of a first subset of the plurality of menu items is associated with at least one remote command of the plurality of remote commands. *E.g.*, Specification, par. [0023], [0027], [00178], [00184], [00202], [00206], [00207].

The controller under control of the instruction code enables the user to scroll among the menu items to point to and select one of the menu items using the manual input portion. *E.g.*, Specification, par. [0027], [00205]-[00207].

The controller under control of the instruction code communicates with the transmitter via the first interface section, the digital bus, and the second interface section, to direct the transmitter to send remote commands associated with the menu items selected by the user to the controlled system. *E.g.*, Specification, par. [0023], [0027], [00204]-[00207]; Fig. 13, items 1340, 1380, 1385.

Claim 64

Claim 64 is directed to a remote control security and entertainment system installed in a vehicle. *E.g.*, Specification, par. [0020], [0044], [0061]; Fig. 2, item 200. The system includes a base unit. *E.g.*, Specification, par. [0020], [0044], [0045]; Fig. 2, item 205. The system also includes a remote controller enabling a user to operate the base unit. *E.g.*, Specification, par. [0044]; Fig. 2, item 290.

The base unit includes a base controller. *E.g.*, Specification, par. [0045]; Fig. 2, item 230. The base unit further includes security sensors coupled to the base controller. *E.g.*, Specification, par. [0045]; Fig. 2, items 215, 217, 219. The base unit further includes a video entertainment module with a plurality of functions. *E.g.*, Specification, par. [0061]. The base unit further includes a communication module. *E.g.*, Specification, par. [0045]; Fig. 2, item 210.

The remote controller includes a processor. *E.g.*, Specification, par. [0058]; Fig. 3, item 301.

The remote controller further includes a display coupled to the processor to display information to the user under control of the processor. *E.g.*, Specification, par. [0058], [0062], [0063]; Fig. 3, item 350; Fig. 9, item 920.

The remote controller further includes first and second input devices coupled to the processor to allow the processor to read states of the first and second input devices; the states of the first and

second input devices are selected by the user. *E.g.*, Specification, par. [0022], [0062], [0065]-[0067], [0071]; Fig. 3, items 323 and 324; Fig. 9, item 930.

The remote controller further includes a transmitter coupled to the processor. *E.g.*, Specification, par. [0023], [0064], [0066]; Fig. 3, item 311. The transmitter is capable of sending remote commands to the communication module of the base unit under control of the processor. *E.g.*, Specification, par. [0023], [0064], [0066].

The remote controller further includes a memory module coupled to the processor. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305. The memory module stores code executed by the processor. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305.

The remote controller also includes an input port capable of receiving the code executed by the processor, which the processor reads and stores in the memory module. *E.g.*, Specification, par. [0028], [0059]-[0061]; Fig. 3, item 395.

Under control of the code the processor displays to the user a plurality of menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device. *E.g.*, Specification, par. [0022], [0023], [0065], [0066], [0073]; Fig. 5, steps 507, 525; Fig. 6, step 607. 615, 621, 627, 637. At least one of the menu items allows the user to select a function of the video entertainment module. *E.g.*, Specification, par. [0061].

Claim 65

Claim 65 is directed to a remote control security and positioning system installed in a vehicle. *E.g.*, Specification, par. [0020], [0044], [0061]. The system includes a base unit. *E.g.*, Specification, par. [0020], [0044], [0045]; Fig. 2, item 205. The system further includes a remote controller enabling a user to operate the base unit. *E.g.*, Specification, par. [0044]; Fig. 2, item 290.

The base unit includes a base controller. *E.g.*, Specification, par. [0045]; Fig. 2, item 230. The base unit further includes security sensors coupled to the base controller. *E.g.*, Specification, par. [0045]; Fig. 2, items 215, 217, 219. The base unit further includes a global positioning module with a plurality of functions. *E.g.*, Specification, par. [0061]. The base unit also includes a communication module. *E.g.*, Specification, par. [0045]; Fig. 2, item 210.

The remote controller includes a processor. *E.g.*, Specification, par. [0058]; Fig. 3, item 301.

The remote controller further includes a display coupled to the processor to display information to the user under control of the processor. *E.g.*, Specification, par. [0058], [0062], [0063]; Fig. 3, item 350; Fig. 9, item 920.

The remote controller further includes first and second input devices coupled to the processor to allow the processor to read states of the first and second input devices; the states of the first and

second input devices are selected by the user. *E.g.*, Specification, par. [0022], [0062], [0065]-[0067], [0071]; Fig. 3, items 323 and 324; Fig. 9, item 930.

The remote controller further includes a transmitter coupled to the processor. *E.g.*, Specification, par. [0023], [0064], [0066]; Fig. 3, item 311. The transmitter is capable of sending remote commands to the communication module of the base unit under control of the processor. *E.g.*, Specification, par. [0023], [0064], [0066].

The remote controller further includes a memory module coupled to the processor. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305. The memory module stores code executed by the processor. *E.g.*, Specification, par. [0022], [0058]; Fig. 3, items 304 and 305.

The remote controller also includes an input port capable of receiving the code executed by the processor, which the processor reads and stores in the memory module. *E.g.*, Specification, par. [0028], [0059]-[0061]; Fig. 3, item 395.

Under control of the code, the processor displays to the user a plurality of menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device. *E.g.*, Specification, par. [0022], [0023], [0065], [0066], [0073]; Fig. 5, steps 507, 525; Fig. 6, step 607, 615, 621, 627, 637. At least one of the menu items allows the user to select a function of the global positioning module. *E.g.*, Specification, par. [0061].

**VI**  
**GROUNDS OF REJECTION TO BE REVIEWED**

1. Claims 1-14, 19, 23, 25, 26, 28-35, 40, 42, 44-53, 55, and 57-67 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Goldenberg *et al.*, U.S. Patent Number 6,636,197 (“Goldenberg” in this paper).
2. Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldenberg.
3. Claims 15-18, 20, 21, 36-39, 41, and 54 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldenberg in view of Will, U.S. Patent Number 5,825,353 (“Will” in this paper).
4. Claims 24, 27, 43, 56, and 67 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Goldenberg in view of Issa *et al.*, U.S. Patent Number 5,783,989 (“Issa” in this paper).

## VII ARGUMENT

### **A. Rejections of Dependent Claims 3 and 33**

Claims 3 and 33 stand rejected as being anticipated by Goldenberg.

Axiomatically, a “claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). (Both *Verdegaal* and *Richardson* cases are quoted with approval in MPEP § 2131.) Here, claim 3 reads as follows:

3. A remote control transmitter in accordance with claim 2, wherein:

the first input device comprises a scroll wheel with an internal push-to-activate switch operable by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel;

the user selects the state of the first input device by rotating the scroll wheel;

the second input device comprises the internal push-to-activate switch of the scroll wheel; and

the user selects the state of the second user device by depressing and releasing the scroll wheel.

Thus, in addition to the limitations of its base claim 1 and intervening claim 2, claim 3 requires the presence of a scroll wheel with an internal push-to-activate switch operable by

depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel. Goldenberg does not disclose such a scroll wheel.

According to the Office Action (at page 4), Goldenberg's control panel 12 includes "a scroll control knob/wheel 26 for a user/driver to rotate the wheel 26 toward a direction of any vehicle operation functions . . . to be selected." For this proposition, the Office Action cites (at page 4) Goldenberg's Figures 1 and 3; the abstract; and text at column 2, lines 27-44; column 4, lines 1-67; column 5, lines 1-67; column 6, lines 1-55; column 8, lines 57-58; and column 12, lines 17-19. The Office Action further supports (at page 19) this proposition with citation of Goldenberg at column 8, line 18; column 12, lines 18-19; and column 25, line 59.

In Goldenberg, the numeral 26 designates a knob, not a scroll wheel. *See, for example, Goldenberg, Figure 1; id., column 5, lines 6-15.* A *knob* is not the same as a *scroll wheel*. One dictionary defines a *knob*, in the relevant part, as a "rounded lump or protuberance, esp. at the end or on the surface of a thing." OXFORD UNIVERSITY PRESS, THE NEW SHORTER OXFORD ENGLISH DICTIONARY (CD-ROM ed. 1996); *see also* Merriam-Webster OnLine, available online at <http://www.m-w.com/dictionary> (a knob is "a rounded protuberance: LUMP," "a small rounded ornament or handle"). Goldenberg's knob 26 appears to be such a conventional knob. Goldenberg, Fig. 1. In contrast, a *scroll wheel* in the computer context is "a hard plastic or rubbery disc on a computer mouse that is perpendicular to the mouse surface." Wikipedia Encyclopedia, available online at [http://en.wikipedia.org/wiki/Scroll\\_wheel](http://en.wikipedia.org/wiki/Scroll_wheel).<sup>2</sup> A scroll wheel protrudes from a surface along the wheel's radial direction, as is common in mice scroll wheels, and as is illustrated in Figures 9 and

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<sup>2</sup> Note that the claims do not limit the scroll wheel to any particular material composition, such as plastic or

10 of the present application. In contrast, a knob protrudes from a surface along the knob's axial direction, as is illustrated in Goldenberg's Figure 1.

To be sure, Goldenberg does mention *scroll wheels* in column 12, lines 15-19, and in column 25, lines 57-60. In column 12, Goldenberg states that "force sensations can be used with rotational manipulandums such as knobs, steering wheels, or rotary scroll wheels on mice." Goldenberg, col. 12, lines 17-19. Similarly, in column 25 Goldenberg discloses that "the force models and effects described above can be used in a variety of force feedback devices besides rotational devices like knobs, scroll wheels, and steering wheels." Goldenberg, col. 25, lines 57-60. Note that in both places the Goldenberg reference itself apparently makes a distinction between *knobs* and *scroll wheels*. While Goldenberg in columns 12 and 25 may suggest that force sensations may be used with scroll wheels, Goldenberg does not teach that a scroll wheel is used in a device such as the control panel 12 or another remote control of a security system. Moreover, Goldenberg in column 12 apparently limits the use of scroll wheels to mice. Goldenberg, col. 12, line 19. In contrast, claim 3 recites the use of a scroll wheel as an input device of a security system remote control.

Goldenberg does not disclose the identical invention in as complete detail as is contained in claim 3, as the legal standard for anticipation requires. For this reason, Goldenberg does not anticipate claim 3. Claim 33 recites scroll wheel limitations similar to those addressed above in relation to claim 3. Goldenberg fails to anticipate claim 33 at least for the same reason as are discussed above in relation to claim 3.

**B. Rejections of Dependent Claims 4, 47, and 61**

Claims 4, 47, and 61 stand rejected as being anticipated by Goldenberg.

Claim 4 recites that “the display displays the menu items one-at-a-time.” In rejecting this claim, the Office Action summarily stated (at page 4) that “[r]egarding claim 4, all the claimed subject matters are cited in respect to claim 3 above.” In effect, the Office Action ignored the additional limitations of claim 4. Goldenberg does not disclose displaying menu items one-at-a-time. To the contrary, Goldenberg shows multiple menu items displayed in Figures 1 and 4E. See also Goldenberg at column 3, lines 47-48 (“multiple menus or lists”), and at column 5, lines 53-56 (“the user can move a cursor . . . to a desired selection on the display”).

Applicants respectfully submit that Goldenberg fails to anticipate claim 4 because Goldenberg does not disclose displaying menu items one at a time. Claims 47 and 61 recite *inter alia* identical or similar limitations, and should be patentable at least for the same reason.

**C. Rejections of Dependent Claims 5 and 48**

Claims 5 and 48 stand rejected as being anticipated by Goldenberg.

Claim 5 recites the limitation of “wherein one of the menu items occupies no less than substantially half of the display area capable of displaying menu items.” Claim 48 recites similar or identical limitations.

In rejecting claim 5, the Office Action (at page 4) cited Goldenberg’s Figure 1 for disclosure of these limitations. The display 14 illustrated in Figure 1, however, shows a cursor on a menu item “K”; similarly sized menu items “A” through “J” and “L” through “P” are also shown in the same

Figure. Each of these menu items occupies substantially less than half of the display area capable of displaying menu items. Furthermore, even if options/modes 20 and other information 22 can be considered menu items, clearly each one of these presumed items also occupies substantially less than half of the display area capable of displaying menu items. Goldenberg does not disclose a menu item that occupies less than substantially half of the display area capable of displaying menu items, either in Figure 1 or elsewhere.

At least for this reason, Applicants respectfully submit that Goldenberg fails to anticipate claims 5 and 48.

#### **D. Rejections of Dependent Claims 13, 35, and 52**

Claims 13, 35, and 52 stand rejected as being anticipated by Goldenberg.

Each of these claims recites limitations relating to screen inversion. Screen inversion is explained in the specification, for example, as follows:

The display 920 can be inverted by selecting and activating a menu list item that sets an indicator and initiates a software inversion of the displayed menu items. In essence, the information displayed on the screen 920 is flipped bottom-up. When the display 920 is so inverted, the remote controller 900 can be held in the left hand and operated by the left-hand thumb while the items are normally displayed on the screen 920. The remote control 900 is thus easy to use by both right- and left-handed users.

Specification, numbered paragraph [00181].

The Office Action asserted (at page 6) that Goldenberg shows screen inversion in the display 14 of Figure 1, and discloses screen inversion in the text of column 4, lines 47-67, in column 5, lines 1-67, and in column 6, lines 32-44. The undersigned attorney has perused both Figure 1 and the

cited text portions of Goldenberg, but has not been able to identify a disclosure of screen inversion. Goldenberg is apparently devoid of such disclosure.

Applicants respectfully submit that Goldenberg fails to teach screen inversion, and at least for this reason fails to anticipate claims 13, 35, and 52.

#### **E. Rejections of Dependent Claims 19 and 40**

Claims 19 and 40 stand rejected as being anticipated by Goldenberg.

Each of these claims recites an outer housing for housing the processor, the display, the first and second input devices, the transmitter, and the memory module. The claim further requires the display to be disposed on the top surface of the outer housing.

In rejecting claim 19, the Office Action (at page 6) generally cited Goldenberg's Figure 1. Contrary to the assertion of the Office Action, Goldenberg's Figure 1 shows the panel 12 and the display 14 in two separate housings. Therefore, Goldenberg's Figure 1 fails to disclose "an outer housing for housing the processor, the display, the first and second input devices, the transmitter, and the memory module," as recited in each of the claims 19 and 40.

Applicants respectfully submit that Goldenberg fails to anticipate claims 19 and 40 at least for this reason.

#### **F. Rejection of Dependent Claim 25**

Claim 25 stands rejected as being anticipated by Goldenberg.

Claim 25 requires the remote control transmitter to include a receiver coupled to the processor, the receiver being capable of receiving messages containing information from the communication module of the base unit and providing the messages to the processor. The messages comprise alarm, status, or diagnostic data.

In rejecting claim 25, the Office Action (at page 7) asserted that Goldenberg discloses the receiver of claim 25, citing Goldenberg's Figure 3, and text in column 4, line 37, and column 10, lines 54-65.

Neither Figure 3 nor the text in columns 4 and 10 of Goldenberg apparently disclose that the messages provided to the processor of the panel 12 include alarm, status, or diagnostic data. Therefore, Goldenberg fails to disclose *a receiver coupled to the processor, the receiver being capable of receiving messages containing information from the communication module of the base unit and providing the messages to the processor, wherein the messages comprise alarm, status, or diagnostic data*, as recited in claim 25.

Applicants respectfully submit that Goldenberg fails to anticipate claim 25 at least for this reason.

#### **G. Rejection of Dependent Claim 26**

Claim 26 stands rejected as being anticipated by Goldenberg.

The claim requires presence of a scroll wheel with an internal push-to-activate switch operable by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel. Applicants respectfully submit that Goldenberg fails to

anticipate claim 26 at least because Goldenberg does not disclose such a scroll wheel, as is discussed in more detail above in relation to claims 3 and 33.

#### **H. Rejection of Dependent Claim 29**

Claim 29 stands rejected as being anticipated by Goldenberg.

The claim requires the remote control transmitter to include an input data port capable of receiving the code executed by the processor, wherein the processor reads the code from the input data port and stores the code in the memory module.

In rejecting claim 29, the Office Action asserted (at page 7) that Goldenberg discloses “the other input 220 receiving by the microprocessor 202 and memory 206,” and cited Figure 3 and column 10, lines 40-47. Goldenberg’s Figure 3 indeed shows the input devices 220 connected to a local microprocessor 202. Goldenberg describes the operation of the input devices 220 as follows:

Other input devices 220 can be included to send input signals to microprocessor 202. Such input devices can include buttons or other controls used to supplement the input from the panel to the controlled device. Also, dials, switches, voice recognition hardware (e.g. a microphone, with software implemented by microprocessor 202), or other input mechanisms can also be included to provided input to microprocessor 202 or to the actuator 216. A deadman switch can be included on or near the knob to cause forces to cease outputting when the user is not contacting the knob as desired to prevent the knob from spinning on its own when the user is not touching it, e.g. contact of a user's digit (finger, thumb, etc.) with the knob can be detected, pressure on the knob 26 from the user can be detected.

Goldenberg, col. 10, lines 40-53.

Notably, the above-quoted text (which includes the text cited by the Office Action) does not disclose that the microprocessor 202 receives executable code from the other input devices 220. Applicants respectfully submit that Goldenberg fails to anticipate claim 29 at least for this reason.

### **I. Rejection of Dependent Claim 46**

Claim 46 stands rejected as being anticipated by Goldenberg.

The claim recites scroll wheel limitations similar or identical to those recited in claims 3 and 33. Applicants respectfully submit that Goldenberg fails to anticipate claim 46 at least for the same reasons as were discussed above in relation to claims 3 and 33.

### **J. Rejection of Independent Claim 60**

Independent claim 60 is directed to a method of operating a remote controller to control a remote controlled system over a wireless link. The method includes holding the remote controller in one hand, rotating a scroll wheel with an internal push-to-activate switch with the thumb of the same hand to display menu items, and depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel to select a menu item and transmit to the remote controlled system a remote command associated with the selected menu item.

The Office Action rejected claim 60 as being anticipated by Goldenberg, citing Figure 1; column 4, lines 47-65; column 5, lines 1-67; column 6, lines 1-44; column 8, lines 51-58; and column 12, lines 15-19. In particular, the Office Action asserted (at page 11) that “the scroll wheel switch 26 allows user’s finger or thumb to activate to display the list/menu on the display 14.”

As we discussed above in relation to claims 3 and 33, Goldenberg's *knob* 26 is not a *scroll wheel*. While Goldenberg in columns 12 and 25 may suggest that force sensations (which the undersigned attorney understands to mean force feedback) can be used with scroll wheels, Goldenberg does not teach that a scroll wheel is used in a device such as the control panel 12 or another remote control of a security system. Moreover, Goldenberg apparently does not disclose or suggest that the knob 26 may be rotated by the thumb of the same hand that is holding the controller. Even if Goldenberg's controller that includes the knob 26 could be made to fit in one hand, it does not follow that the knob would necessarily be operable by the thumb of the hand holding the controller.

Goldenberg does not disclose the identical invention in as complete detail as is claimed in claim 60. For this reason, Goldenberg does not anticipate claim 60.

#### **K. Rejection of Independent Claim 62**

Claim 62 stands rejected as being anticipated by Goldenberg. For convenience of discussion, independent claim 62 is set forth below:

62. A menu-driven remote control for operating a controlled system over a wireless link, the remote control comprising:

    a hand-held general-purpose computing device comprising:

        a first interface section,

        a manual input portion,

        a memory module,

        a graphical display, and

a controller coupled to the first interface section, the manual input portion, the memory module, and the graphical display, the controller executing instruction code; and

a wireless communication module comprising a second interface section and a transmitter coupled to the second interface section, the second interface section being coupled to the first interface section through a digital bus, the transmitter being capable of sending a plurality of remote commands to the controlled system over the wireless link, the remote commands instructing the controlled system to perform various operations;

wherein:

the controller under control of the instruction code displays, on the graphical display, to the user, various menu items of a plurality of menu items;

each menu item of a first subset of the plurality of menu items is associated with at least one remote command of the plurality of remote commands;

the controller under control of the instruction code enables the user to scroll among the menu items to point to and select one of the menu items using the manual input portion; and

the controller under control of the instruction code communicates with the transmitter via the first interface section, the digital bus, and the second interface section, to direct the transmitter to send remote commands associated with the menu items selected by the user to the controlled system.

Claim 62 is thus directed to a menu-driven remote control for operating a controlled system that includes a hand-held general-purpose computing device in combination with a wireless communication module. In rejecting this claim, the Office Action (at page 11) did not refer to any specific portions of Goldenberg, but asserted that “all the claimed subject matters are cited in respect to claims 1, 2, 13 and 53 above.” The rejections of claims 1, 2, and 13 do not mention “a hand-held general-purpose computing device.” The rejection of claim 53 (page 10 of the Office Action)

asserted that “the control device 12 is configured as a personal digital assistant PDA, cellular phone or any handheld remote control device . . . .” The Office Action cited Goldenberg’s column 4, lines 21-28, and column 10, lines 47-53 in support of this assertion. The cited text of column 10 appears to be irrelevant to the present discussion. The cited text of column 4 is quoted below:

Alternatively, the controlled device can be a variety of other electronic or computer devices. For example, the device can be a home appliance such as a television set, a microwave oven or other kitchen appliances, a washer or dryer, a home stereo component or system, a home computer, personal digital assistant, cellular phone, a set top box for a television, a video game console, a remote control for any device, a controller or interface device for a personal computer or console games, a home automation system (to control such devices as lights, garage doors, locks, appliances, etc.), a telephone, photocopier, control device for remotely-controlled devices such as model vehicles, toys, a video or film editing or playback system, etc.

Goldenberg, col. 4, lines 21-33. According to the quoted text, it is the controlled device that can be a personal digital assistant (PDA). In accordance with claim 62, the combination of a PDA and a wireless communication module constitute a remote control for operating a controlled system. Goldenberg thus arguably discloses a PDA being controlled by the panel 12. Goldenberg does not disclose a PDA configured to control another controlled system or device, and therefore fails to disclose the identical invention in as complete detail as is recited in claim 62.

At least for this reason, Applicants respectfully submit that Goldenberg does not anticipate claim 62.

#### **L. Rejection of Independent Claim 64**

Independent claim 64 stands rejected as being anticipated by Goldenberg. For convenience,

the claim is set forth below:

64. A remote control security and entertainment system installed in a vehicle, the system comprising:

a base unit comprising a base controller, security sensors coupled to the base controller, a video entertainment module with a plurality of functions, and a communication module; and

a remote controller enabling a user to operate the base unit, the remote controller comprising:

a processor;

a display coupled to the processor to display information to the user under control of the processor;

a first input device coupled to the processor to allow the processor to read state of the first input device, the state of the first input device being selected by the user;

a second input device coupled to the processor to allow the processor to read state of the second input device, the state of the second input device being selected by the user;

a transmitter coupled to the processor, the transmitter being capable of sending remote commands to the communication module of the base unit under control of the processor;

a memory module coupled to the processor, the memory module storing code executed by the processor; and

an input port capable of receiving the code executed by the processor;

wherein:

the processor reads the code from the input port and stores the code in the memory module;

the processor under control of the code displays to the user a plurality of menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select

the menu item that is pointed to by using the second input device, at least one of the menu items allowing the user to select a function of the video entertainment module.

The remote controller of claim 64 thus includes “an input port capable of receiving the code executed by the processor.” As discussed in more detail above in relation to claim 29, Goldenberg does not disclose a data port capable of receiving the code executed by the processor.

Furthermore, claim 64 is directed to a remote control security and entertainment system installed in a vehicle. The base unit of the system comprises both (1) security sensors, and (2) a video entertainment module. Goldenberg discloses that the control knob 26 of the panel 12 may be used to control an automobile’s security or alarm system (col. 4, lines 1-13); Goldenberg also discloses that the controlled system may be a video playback system (col. 4, lines 21-33). Goldenberg apparently does not disclose that the controlled device includes both security sensors and a video entertainment module, as claim 64 requires.

At least for these reasons, Applicants respectfully submit that Goldenberg does not anticipate independent claim 64.

#### **M. Rejection of Independent Claim 65**

Independent claim 65 stands rejected as being anticipated by Goldenberg.

Claim 65 is directed to a remote control security and positioning system installed in a vehicle. The claimed system includes a base unit with security sensors and a global positioning module, and a remote controller enabling a user to operate the base unit. The reasoning given in the Office Action in support of the rejection of this claim reads in its entirety as follows: “Regarding claim 65, all the

claimed subject matters are cited in respect to claims 1, 15, and 29 above.”

The undersigned attorney has reviewed Goldenberg, but has not identified any disclosure of a global positioning system, and particularly of a remotely-controlled global positioning system installed in a vehicle. It appears that Goldenberg is devoid of such teaching.

At least for this reason Applicants respectfully submit that Goldenberg fails to anticipate independent claim 65.

**N. Rejections of Claims 15-18, 20, 21, 36-39, 41, and 54 – Lack of Motivation to Combine**

These claims stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldenberg in view of Will. The Office Action acknowledged that Goldenberg does not disclose certain limitations in each of these claims, and then attempted to combine Goldenberg with Will. The purported motivation to combine given in the Office Action reads as follows:

Therefore, an artisan would implement the side scroll wheel of Beckert et al for the top surface scroll wheel of Goldenberg et al as a design choice to provide the scroll wheel for easily for a user to manipulate or use of the scroll wheel of the PDA on one hand, while having the other hand to be free to use on something else.

Office Action at 14.

The Patent and Trademark Office has the burden of making a *prima facie* case of obviousness under 35 U.S.C. § 103. *E.g.*, *In re Mayne*, 104 F.3d 1339, 1342 (Fed. Cir. 1997); MPEP § 2142. There are three basic requirements for establishing a *prima facie* case of obviousness. MPEP § 2143. First, the combination of prior art references must teach or suggest all the claim limitations. *Id.* Second, there must be a reasonable expectation of success. *Id.* Third, there also “must be some

suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings.” *Id.* Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant’s disclosure. *Id.* (citing *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991)). Here, the references fail to provide a proper motivation to combine. Furthermore, there appears to be no reasonable expectation of success in the asserted combination.

Initially, note that the motivation to combine given in the Office Action speaks of combining Beckert et al with Goldenberg. The Office Action does not offer any motivation to combine Will with Goldenberg.

The purported rationale to combine is deficient in other ways as well. Note that in rejecting claim 60 the Office Action apparently asserted that Goldenberg discloses holding and operating the remote control using the same hand. As discussed above, we disagree with this assertion. But if the assertion regarding claim 60 were accepted, then the motivation to add another disclosure to Goldenberg to free one hand simply disappears. If the device is held and operated with the same hand, then the other hand is already free. A person skilled in the art would not have a need to do anything additional for “the other hand to be free to use on something else.”

Furthermore, the Office Action does not cite any source for the teaching of a need to operate a menu-driven remote control with the same hand that holds the control. The motivation or suggestion to combine to meet the need to free one hand was apparently taken from the Applicants’ disclosure. But to make out a *prima facie* case of obviousness, the suggestion to combine must be founded in the prior art, not in the Applicants’ disclosure. *In re Vaeck*, 947 F.2d at 493.

Turning next to the expectation of success, note that Will discloses a miniature device. Will, the Abstract. The typical size of Will's device is the same as that of a standard credit card, with a thickness of 0.25 inches or less. Will, col. 5, lines 40-55. In contradistinction, Goldenberg's knob and display appear to be rather bulky. Goldenberg, Figure 1. Consider also the number and types of components of the knob shown in Goldenberg's Figure 2. The knob, for example, includes "an actuator 84, such as a DC motor." Goldenberg, col. 7, line 54. Thus, it appears that Goldenberg's knob, intended to provide haptic feedback, would not be easily adapted to fit in a housing the size of a credit card, as taught by Will. Consequently, there appears to be no reasonable expectation of success in the combination of Will and Goldenberg.

The Office Action did not articulate a sufficient motivation to combine Will with Goldenberg. Indeed, the Office Action did not articulate any motivation to combine Will with Goldenberg. The Office Action also failed to provide a reasonable expectation of success founded in the prior art. Applicants respectfully submit that a *prima facie* case of obviousness of claims 15-18, 20, 21, 36-39, 41, and 54 has not been made at least for these reasons.

#### **O. Rejections of Dependent Claims 17, 18, 20, 21, 38, 39, and 41 – Size and Activation Pressure Limitations**

These claims recite various size and activation pressure range limitations. The Office Action failed to point out where these limitations are disclosed in the cited references. It appears that the limitations are neither disclosed nor suggested by the references.

With respect to the selection of pressure needed to activate the internal switch, the Office

Action asserted (at pages 14-15) that this limitation “reads upon the force/haptic feedback scroll control knob operated by the force sensations, other force effects and resistive forces are applied,” citing Goldenberg at column 12, line 14, through column 17, line 57. Goldneberg, however, does not disclose the specific pressure ranges recited. If the specific pressure range is disclosed in Goldenberg or another reference, the Office Action should have pointed to it. This has not been done. The record does not indicate why a hypothetical person skilled in the art would have been motivated to select the pressure needed to activate the internal switch within the specific range claimed by the Applicants.

With respect to the size limitation in claim 17, the Office Action referred to the discussion of claim 16. Regarding claim 16, the Office Action asserted that “an artisan would recognize that it is a design choice to make dimensions of the device surface . . . less than 1.5 inches, . . . to provide convenience and easily holding and operating of the electronic device.” Invocation of “design choice” does not obviate the need to provide sufficient reasoning in support of an obviousness rejection. To make a *prima facie* case of obviousness, the Office should provide reasoning why a specific feature is a “design choice” and therefore obvious. *See In re Chu*, 66 F.3d 292, 36 U.S.P.Q.2d 1089 (Fed. Cir. 1995). Such reasoning has not been provided here.

At least for these reasons, Applicants respectfully submit that a *prima facie* case of obviousness of claims 17, 18, 20, 21, 38, 39, and 41 has not been made, and that these dependent claims are separately patentable over the references.

**P. Rejections of Dependent Claims 24, 27, 43, 56, and 67 – Lack of Motivation to Combine**

These claims stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldenberg in view of Issa. The Office Action acknowledged that Goldenberg does not disclose certain limitations in each of these claims, and then attempted to combine Goldenberg with Issa. The purported motivation to combine Goldenberg with Issa given in the Office Action reads as follows:

Therefore, it would have been obvious to one skill in the art at the time the invention was made to programmed the processor of Goldenberg et al with vehicle security functions such as of Issa et al for providing vehicle security and personal convenience as well. Today RF remote controlled vehicle security provides remote door locking/unlocking, remote trunk release, remote window roll up/down, remote ignition starting are available to in the market.

Office Action, at 17.

The second of the two sentences quoted immediately above improperly focuses on today instead of the time the invention was made, and therefore cannot provide the requisite motivation to combine. The first sentence merely speaks of providing vehicle security and personal convenience. If it means that a person skilled in the art would have been motivated by the advantages of the Applicants' invention, then the suggestion to combine was derived from the Applicants' disclosure. But the suggestion must be founded in the prior art, not in the Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). If the first sentence means something else, the Office Action should have provided some fact-based explanation of the motivation to combine. Such explanation was not provided.

Applicants respectfully submit that a *prima facie* case of obviousness of claims 24, 27, 43, 56, and 67 has not been made at least for these reasons.

**Q. Rejections of Remaining Dependent Claims**

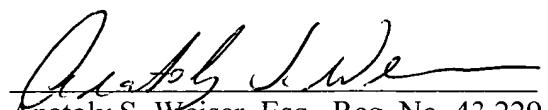
Dependent claims not specifically addressed in the above arguments should be patentable at least for the reasons discussed in relation to their respective base claims and intervening claims, if any.

**VIII**  
**CONCLUSION**

For the foregoing reasons, Appellants respectfully submit that all pending claims are patentable over the references of record and respectfully request reversal of the rejections.

Respectfully submitted,

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## **CLAIMS APPENDIX**

The following is a listing of the claims in the application. All claims have been rejected and are involved in this Appeal. Applicants appeal from the rejections of claims 3-30, 33-44, and 46-67.

1. A remote control transmitter for enabling a user to control remotely a security system, the security system having a base unit with a communication module, the remote control transmitter comprising:
  - a processor;
  - a display coupled to the processor to display information to the user under control of the processor;
  - a first input device coupled to the processor to allow the processor to read state of the first input device, the state of the first input device being selected by the user;
  - a second input device coupled to the processor to allow the processor to read state of the second input device, the state of the second input device being selected by the user;
  - a transmitter coupled to the processor, the transmitter being capable of sending remote commands to the communication module of the base unit under control of the processor; and
  - a memory module coupled to the processor, the memory module storing code executed by the processor;wherein the processor under control of the code displays to the user various menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the

second input device.

2. A remote control transmitter in accordance with claim 1, wherein the transmitter sends commands to the communication module of the base unit over a wireless link.

3. A remote control transmitter in accordance with claim 2, wherein:

the first input device comprises a scroll wheel with an internal push-to-activate switch operable by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel;

the user selects the state of the first input device by rotating the scroll wheel;

the second input device comprises the internal push-to-activate switch of the scroll wheel;

and

the user selects the state of the second user device by depressing and releasing the scroll wheel.

4. A remote control transmitter in accordance with claim 3, wherein the display displays the menu items one-at-a-time.

5. A remote control transmitter in accordance with claim 4, wherein one of the menu items occupies no less than substantially half of the display area capable of displaying menu items.

6. A remote control transmitter in accordance with claim 3, wherein the remote control transmitter provides feedback to the user when the user scrolls among the menu items.
7. A remote control transmitter in accordance with claim 6, wherein the scroll wheel clicks when it is rotated, providing tactile and audible feedback to the user when the user scrolls among the menu items.
8. A remote control transmitter in accordance with claim 7, wherein the remote control transmitter provides feedback to the user when the user depresses the internal press-to-activate switch of the scroll wheel.
9. A remote control transmitter in accordance with claim 8, wherein the internal press-to-activate switch clicks when the user depresses the internal press-to-activate switch.
10. A remote control transmitter in accordance with claim 7, wherein the transmitter sends the remote commands to the communication module of the base unit over an RF link.
11. A remote control transmitter in accordance with claim 10, wherein each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the plurality of tasks to be performed by the base unit and the remote control transmitter.

12. A remote control transmitter in accordance with claim 11, wherein each task to be performed by the base unit corresponds to at least one of the remote commands.

13. A remote control transmitter in accordance with claim 3, wherein:

each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the plurality of tasks to be performed by the base unit and the remote control transmitter;

each task to be performed by the base unit corresponds to at least one of the remote commands;

the menu items comprise a screen inversion menu item, the plurality of tasks comprises a screen inversion task, the screen inversion menu item corresponds to the screen inversion task; and

the code executed by the processor causes the processor to perform the screen inversion task and invert the display when the screen inversion menu item is selected.

14. A remote control transmitter in accordance with claim 13, wherein the security system is a security system installed in a vehicle.

15. A remote control transmitter in accordance with claim 14, further comprising:

an outer housing for containing the processor, the display, the first and second input devices, the transmitter, and the memory module, the outer housing comprising a top surface, a bottom surface, and sidewalls;

wherein:

the display is disposed on the top surface of the outer housing; and  
the scroll wheel is disposed on one of the sidewalls of the outer housing and protrudes from  
said one of the sidewalls.

16. A remote control transmitter in accordance with claim 15, wherein the top surface of  
the outer housing has a longer dimension and a shorter dimension substantially perpendicular to each  
other, the longer dimension being less than about 6 inches, the shorter dimension being less than  
about 4 inches.

17. A remote control transmitter in accordance with claim 15, wherein the longest  
dimension of the top surface of the outer housing is less than about 1.5 inches.

18. A remote control transmitter in accordance with claim 17, wherein the pressure  
needed to activate the internal switch is between about .15 and .75 ounces.

19. A remote control transmitter in accordance with claim 14, further comprising:  
an outer housing for housing the processor, the display, the first and second input devices, the  
transmitter, and the memory module, the outer housing comprising a top surface, a bottom surface,  
and sidewalls;

wherein:

the display is disposed on the top surface of the outer housing; and

the scroll wheel is disposed on the top surface of the outer housing and protrudes from the top surface of the outer housing.

20. A remote control transmitter in accordance with claim 19, wherein the longest dimension of the top surface of the outer housing is less than about 1.5 inches.

21. A remote control transmitter in accordance with claim 20, wherein the pressure needed to activate the internal switch is between about .15 and .75 ounces.

22. A remote control transmitter in accordance with claim 3, further comprising a display driver interposed between the processor and the display.

23. A remote control transmitter in accordance with claim 3, wherein:  
each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the plurality of tasks to be performed by the base unit and the remote control transmitter;  
each task to be performed by the base unit corresponds to at least one of the remote commands; and

at least one of the tasks performed by the base unit is a function-programming task for configuring the base unit.

24. A remote control transmitter in accordance with claim 23, wherein the function-

programming task is selected from the list consisting of passive arming, active arming, enabling confirming chirps for arm and disarm state changes, disabling confirming chirps for arm and disarm state changes, turning on ignition locking of doors, and turning off ignition locking of doors.

25. A remote control transmitter in accordance with claim 2, further comprising a receiver coupled to the processor, the receiver being capable of receiving messages containing information from the communication module of the base unit and providing the messages to the processor, wherein the messages comprise alarm, status, or diagnostic data from the base unit.

26. A remote control transmitter in accordance with claim 25, wherein:

- the first input device comprises a scroll wheel with an internal push-to-activate switch operable by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel;
- the user selects the state of the first input device by rotating the scroll wheel;
- the second input device comprises the internal push-to-activate switch of the scroll wheel;
- the user selects the state of the second user device by depressing and releasing the scroll wheel;
- the processor causes the display to display at least some information contained in the messages; and
- the security system is a security system installed in a vehicle.

27. A remote control transmitter in accordance with claim 26, wherein the information in the messages contains diagnostic data.

28. A remote control transmitter in accordance with claim 26, wherein the information in the messages contains alarm data.

29. A remote control transmitter in accordance with claim 1, further comprising an input data port capable of receiving the code executed by the processor, wherein the processor reads the code from the input data port and stores the code in the memory module.

30. A remote control transmitter in accordance with claim 29, wherein the information on the display comprises at least one icon determined by the code read by the processor from the input data port.

31. A remote control security system installed in a vehicle, the security system comprising:

a base unit comprising a base controller, security sensors coupled to the base controller, and a communication module; and

a remote control transmitter enabling a user to operate the base unit, the remote control transmitter comprising:

a processor;

a display coupled to the processor to display information to the user under control of the processor;

a first input device coupled to the processor to allow the processor to read state of the first input device, the state of the first input device being selected by the user;

a second input device coupled to the processor to allow the processor to read state of the second input device, the state of the second input device being selected by the user;

a transmitter coupled to the processor, the transmitter being capable of sending remote commands to the communication module of the base unit under control of the processor; and

a memory module coupled to the processor, the memory module storing code executed by the processor;

wherein the processor under control of the code displays to the user various menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device.

32. A remote control security system in accordance with claim 31, wherein:

the communication module and the transmitter communicate over a wireless link.

33. A remote control security system in accordance with claim 32, wherein:

the first input device comprises a scroll wheel with an internal push-to-activate switch

operable by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel, for enabling the user to select the state of the first input device by rotating the scroll wheel; and

the second input device comprises the internal push-to-activate switch of the scroll wheel for enabling the user to select the state of the second user device by depressing the scroll wheel.

34. A remote control security system in accordance with claim 33, wherein the scroll wheel clicks when it is rotated, thereby providing feedback to the user when the user scrolls among the menu items.

35. A remote control security system in accordance with claim 33, wherein:

each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the plurality of tasks to be performed by the base unit and the remote control transmitter;

the menu items comprise a screen inversion menu item, the plurality of tasks comprises a screen inversion task, the screen inversion menu item corresponds to the screen inversion task; and

the code executed by the processor causes the processor to perform the screen inversion task and invert the display when the screen inversion menu item is selected.

36. A remote control security system in accordance with claim 33, further comprising:

an outer housing for housing the processor, the display, the first and second input devices, the transmitter, and the memory module, the outer housing comprising a top surface, a bottom surface,

and sidewalls;

wherein:

the display is disposed on the top surface of the outer housing; and

the scroll wheel is disposed on one of the sidewalls of the outer housing and protrudes from said one of the sidewalls.

37. A remote control security system in accordance with claim 36, wherein the top surface of the outer housing has a longer axis dimension and a shorter axis dimension substantially perpendicular to each other, the longer axis dimension being less than about 6 inches, the shorter axis dimension being less than about 4 inches.

38. A remote control security system in accordance with claim 37, wherein the longest dimension of the top surface of the outer housing is less than about 1.5 inches.

39. A remote control security system in accordance with claim 38, wherein the pressure needed to activate the internal switch is between about .15 and .75 ounces.

40. A remote control security system in accordance with claim 33, further comprising: an outer housing for housing the processor, the display, the first and second input devices, the transmitter, and the memory module, the outer housing comprising a top surface, a bottom surface, and sidewalls;

wherein:

the display is disposed on the top surface of the outer housing; and

the scroll wheel is disposed on the top surface of the outer housing and protrudes from the top surface of the outer housing.

41. A remote control security system in accordance with claim 40, wherein the longest dimension of the top surface of the outer housing is less than about 1.5 inches.

42. A remote control security system in accordance with claim 33, wherein:

at least two of the menu items correspond to tasks of a plurality of tasks performed by the base unit and the remote control transmitter; and

at least one of the tasks performed by the base unit is a function-programming task for configuring the base unit.

43. A remote control security system in accordance with claim 42, wherein the function-programming task is selected from the list consisting of passive arming, active arming, enabling confirming chirps for arm and disarm state changes, disabling confirming chirps for arm and disarm state changes, turning on ignition locking of doors, and turning off ignition locking of doors.

44. A remote control security system in accordance with claim 33, wherein:

the remote control transmitter further comprises a receiver coupled to the processor, the

receiver being capable of receiving messages containing information from the communication module of the base unit and providing the messages to the processor;

the processor causes the display to display at least some information contained in the messages; and

the information in the messages contains alarm data.

45. A remote controller for enabling a user to control a security system installed in a vehicle, the security system comprising a base unit with a communication module, the remote controller comprising:

means for processing data;

means for displaying information to the user under control of the means for processing;

first input means for assuming at least two states under control of the user, the first input means being coupled to the processing means to allow the processing means to read the states of the first input means;

second input means for assuming at least two states under control of the user, the second input means being coupled to the processing means to allow the processing means to read the states of the second input means;

a transmitter coupled to the processing means, the transmitter being capable of sending remote commands over an RF link to the communication module of the base unit under control of the processing means; and

memory means coupled to the processing means, the memory means storing code executed

by the processing means;

wherein the processing means under control of the code displays to the user various menu items on the display means, allows the user to scroll among the menu items to point to one of the menu items using the first input means, and allows the user to select the menu item that is pointed to by using the second input means.

46. A remote controller in accordance with claim 45, wherein:

the first input means comprises a scroll wheel;

the user selects the state of the first input means by rotating the scroll wheel;

the second input means comprises an internal push-to-activate switch of the scroll wheel;

the user selects the state of the second input means by depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel and releasing the scroll wheel.

47. A remote controller in accordance with claim 46, wherein the display means displays the menu items one at a time.

48. A remote controller in accordance with claim 47, wherein one of the menu items occupies no less than substantially half of the display area of the display means capable of displaying menu items.

49. A remote controller in accordance with claim 46, further comprising means for

providing tactile feedback to the user when the user scrolls among the menu items.

50. A remote controller in accordance with claim 46, further comprising means for providing audible feedback to the user when the user scrolls among the menu items.

51. A remote controller in accordance with claim 46, further comprising means for providing feedback to the user when the user depresses the internal press-to-activate switch of the scroll wheel.

52. A remote controller in accordance with claim 46, wherein:  
each of the menu items corresponds to at least one task of a plurality of tasks, the tasks of the plurality of tasks to be performed by the base unit and the remote controller;  
the menu items comprise a screen inversion menu item, the plurality of tasks comprising a screen inversion task, the screen inversion menu item corresponding to the screen inversion task; and  
the code executed by the processing means causes the processing means to perform the screen inversion task and invert the display means when the screen inversion menu item is selected.

53. A remote controller in accordance with claim 47, further comprising an outer shell means for housing the processing means, the display means, the first and second input means, the transmitter, and the memory means, the outer shell means being for enabling the user to hold and operate the remote control with one hand.

54. A remote controller in accordance with claim 53, wherein the pressure needed to activate the internal switch is between about .15 and .75 ounces.

55. A remote controller in accordance with claim 52, wherein at least one of the tasks performed by the base unit is a function-programming task for configuring the base unit.

56. A remote controller in accordance with claim 55, wherein the function-programming task is selected from the list consisting of passive arming, active arming, enabling confirming chirps for arm and disarm state changes, disabling confirming chirps for arm and disarm state changes, turning on ignition locking of doors, and turning off ignition locking of doors.

57. A remote controller in accordance with claim 46, further comprising a receiver coupled to the processing means, the receiver being capable of receiving messages containing information from the communication module of the base unit and providing the messages to the processing means.

58. A remote controller in accordance with claim 57, wherein the processing means causes the display means to display at least some information contained in at least one of the messages.

59. A remote controller in accordance with claim 58, wherein the information in said at least one of the messages contains alarm data.

60. A method of operating a remote controller to control a remote controlled system over a wireless link, the method comprising:

holding the remote controller in one hand;  
rotating a scroll wheel with an internal push-to-activate switch with the thumb of said hand to cause the remote controller to display menu items;  
depressing the scroll wheel in a radial direction of the scroll wheel toward center of the scroll wheel to select a menu item and transmit a remote command associated with the selected menu item to the remote controlled system.

61. A method in accordance with claim 60, wherein:  
the remote controlled system comprises an automotive security system; and  
said rotating step comprises the step of causing the remote controller to display menu items one-at-a-time.

62. A menu-driven remote control for operating a controlled system over a wireless link, the remote control comprising:

a hand-held general-purpose computing device comprising:  
a first interface section,

a manual input portion,  
a memory module,  
a graphical display, and  
a controller coupled to the first interface section, the manual input portion, the memory module, and the graphical display, the controller executing instruction code; and a wireless communication module comprising a second interface section and a transmitter coupled to the second interface section, the second interface section being coupled to the first interface section through a digital bus, the transmitter being capable of sending a plurality of remote commands to the controlled system over the wireless link, the remote commands instructing the controlled system to perform various operations;

wherein:

the controller under control of the instruction code displays, on the graphical display, to the user, various menu items of a plurality of menu items;  
each menu item of a first subset of the plurality of menu items is associated with at least one remote command of the plurality of remote commands;  
the controller under control of the instruction code enables the user to scroll among the menu items to point to and select one of the menu items using the manual input portion; and  
the controller under control of the instruction code communicates with the transmitter via the first interface section, the digital bus, and the second interface section, to direct the transmitter to send remote commands associated with the menu items selected by the user to the controlled system.

63. A menu-driven remote control according to claim 62, wherein:

the hand-held general-purpose computing device further comprises an electrical power source for operating the hand-held general purpose computing device and for providing electrical power to the wireless communication module.

64. A remote control security and entertainment system installed in a vehicle, the system comprising:

a base unit comprising a base controller, security sensors coupled to the base controller, a video entertainment module with a plurality of functions, and a communication module; and

a remote controller enabling a user to operate the base unit, the remote controller comprising:

a processor;

a display coupled to the processor to display information to the user under control of the processor;

a first input device coupled to the processor to allow the processor to read state of the first input device, the state of the first input device being selected by the user;

a second input device coupled to the processor to allow the processor to read state of the second input device, the state of the second input device being selected by the user;

a transmitter coupled to the processor, the transmitter being capable of sending remote commands to the communication module of the base unit under control of the processor;

a memory module coupled to the processor, the memory module storing code

executed by the processor; and

an input port capable of receiving the code executed by the processor;

wherein:

the processor reads the code from the input port and stores the code in the memory module;

the processor under control of the code displays to the user a plurality of menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device, at least one of the menu items allowing the user to select a function of the video entertainment module.

65. A remote control security and positioning system installed in a vehicle, the system comprising:

a base unit comprising a base controller, security sensors coupled to the base controller, a global positioning module with a plurality of functions, and a communication module; and

a remote controller enabling a user to operate the base unit, the remote controller comprising:

a processor;

a display coupled to the processor to display information to the user under control of the processor;

a first input device coupled to the processor to allow the processor to read state of the first input device, the state of the first input device being selected by the user;

a second input device coupled to the processor to allow the processor to read state of

the second input device, the state of the second input device being selected by the user;  
a transmitter coupled to the processor, the transmitter being capable of sending remote commands to the communication module of the base unit under control of the processor;  
a memory module coupled to the processor, the memory module storing code executed by the processor; and  
an input port capable of receiving the code executed by the processor;

wherein:

the processor reads the code from the input port and stores the code in the memory module;  
the processor under control of the code displays to the user a plurality of menu items on the display, enables the user to scroll among the menu items to point to one of the menu items using the first input device, and enables the user to select the menu item that is pointed to by using the second input device, at least one of the menu items allowing the user to select a function of the global positioning module.

66. A menu-driven remote control according to claim 62, wherein the hand-held general purpose device comprises a personal digital assistant (PDA).

67. A remote control security and entertainment system according to claim 64, wherein the security sensors comprise at least a shock sensor, a field disturbance sensor, or a glass break sensor.

**EVIDENCE APPENDIX**

No evidence has been submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132. No evidence has been entered in the record by the Examiner and relied upon by Appellants in this Appeal.

**RELATED PROCEEDINGS APPENDIX**

Appellants, Assignee, and the undersigned legal representative do not know of any other appeal, interference, or judicial proceeding that is related to, directly affects, is directly affected by, or has a bearing on the decision of the Board of Patent Appeals and Interferences in this Appeal.